

Remarks/Arguments

The Applicants respectfully request reconsideration in view of the amendments made above and the arguments made below. Claims 1-14 and 16-51 were pending. Within the final Office action, claims 1-14, 16-51 are rejected under 35 U.S.C. § 103. By way of the above amendments, claim 51 has been amended, and claims 52-54 have been added. Accordingly, claims 1-14 and 16-54 are now pending.

Rejections under 35 U.S.C. § 103

Claims 1-14, 16-18, 21, 22, 24-31, and 34-49

Within the final Office action, claims 1-14, 16-18, 21, 22, 24-31, and 34-49 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,793,976 (Chen), as applied to claim 11, and further in view of U.S. Patent No. 5,892,754 (Kompella). The Applicants respectfully disagree with these rejections.

Chen is directed to performance monitoring in a computer network. Chen discloses modifying management packets at intermediate nodes along the network to reflect local payload performance at the intermediate nodes, performances such as node-by-node delays and node-by-node lost packets. In some embodiments, Chen discloses storing in a data packet each local payload performance to indicate performance at each particular intermediate node. In other embodiments, Chen discloses accumulating the local payload performance at each intermediate node to keep a running total and storing that total in a data packet.

Within the final Office action, it is admitted that Chen does not disclose measurement packets that include control data directing a receiver of a measurement packet to change one or more configuration parameters of the receiver, as recited in the independent claims of the present invention.

Kompella is directed to monitoring data flow, with a user application controlling the data flow. (*See, e.g.*, Kompella, col. 5, line 65, to col. 6, line 2) Kompella discloses that in response to network monitoring, the user application can change the method of coding data to reduce bandwidth, can pack more signal samples into a packet to reduce the effects of jitter (col. 8, lines 48-50), or can reduce the frame rate of video signals (col. 5, lines 44-46).

As stated in the final Office action, Kompella discloses generating a QoS event signal if a QoS parameter violation has occurred. Kompella does not disclose that a **measurement packet**

contains control data as recited in the claims of the present invention. Embedding control data within measurement packets, among other things, reduces network bandwidth and allows for clock synchronization, advantages not achieved by the invention in Kompella.

Within the *Response to Arguments* section of the final Office action, it is stated, “Kompella shows that control data could be sent to a receiver to cause the receiver to perform an action i.e. change configuration parameters.” However, Kompella does not disclose that the receiver of a *measurement packet* is directed to change configurations parameters. Nor does Kompella disclose that the control data *directs* the receiver to change configuration parameters. Kompella discloses an event signal that merely notifies the user application of a violation of a QoS lower bound. The user application can use the value to determine any changes to transmission strategy. (*Id.*, col. 7, lines 57-65) In other words, it is the user application that determines whether to make changes—the measurement packet does not contain data that *directs* any changes.

This interpretation is consistent with the Kompella’s goal of allowing the user application to control what changes to make. Kompella teaches that the user application is best able to choose parameters that optimize its operation. (*Id.*, col. 7, lines 35-52) Kompella teaches that the user application knows what type of data is being sent and thus how the configuration parameters can best be adapted to control QoS. (*Id.*, col. 5, lines 35-39.) If Kompella were modified so that a measurement packet directed changing configuration parameters, as in accordance with the present invention, Kompella’s principle of operation would change: the user application would not have the control that Kompella finds so critical. Accordingly, Kompella cannot be used to render the independent claims obvious. M.P.E.P. § 2143.01(VI) (Rev. 6, Sept. 2007).

Claim 1 is directed to a method for communicating data within measurement traffic. The method includes sending a plurality of one or more measurement packets over a plurality of one or more paths, each of the plurality of one or more paths traversing at least a portion of an internetwork. Each of the plurality of one or more measurement packets includes information for a receiver of the measurement packet to compute measurements of performance characteristics of at least a portion of the path of the measurement packet and data. The data includes control data *directing* a receiver of the measurement packet to change one or more configuration parameters of the receiver. The data also includes one or more of measurement statistics, a generic communication channel, and network information.

As explained above, neither Chen nor Kompella, either alone or in combination, discloses measurement packets as recited in claim 1, which include control data directing a receiver of the measurement packet to change one or more configuration parameters of the receiver. For at least this reason, claim 1 is allowable over Chen, Kompella, and their combination.

Like the independent claim 1, the independent claims 4, 9, and 39 all also recite measurement packets that include control data directing a receiver of the measurement packet to change one or more configuration parameters of a receiver. Thus, for the same reasons that claim 1 is allowable over Chen, Kompella, and their combination, claims 4, 9, and 39 are all also allowable.

Claims 2 and 3 both depend on the allowable claim 1; claims 5-8 depend on the allowable claim 4; claims 10-14, 16-18, 21, 22, 24-31, and 34-38 all depend on the allowable claim 9; and claims 40-49 all depend on the allowable claim 39. Accordingly, claims 2, 3, 5-8, 10-14, 16-18, 21, 22, 24-31, 34-38, and 40-49 are all allowable as depending on allowable base claims.

Claims 19, 23, 32, and 33

Within the final Office action, claims 19, 23, 32, and 33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen and Kompella, as applied to claim 9, and further in view of U.S. Patent No. 6,078,953 (Vaid). The Applicants respectfully disagree with these rejections.

As explained above, claim 9 is allowable. Claims 19, 23, and 32 all depend on claim 9. Accordingly, claims 19, 23, and 32 are all allowable as depending on an allowable base claim.

Claim 20

Within the final Office action, claim 20 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen and Kompella, as applied to claim 9, and further in view of U.S. Patent No. 6,385,198 (Ofeck). The Applicants respectfully disagree with this rejection.

As explained above, claim 9 is allowable. Claim 20 depends on claim 9. Accordingly, claim 20 is allowable as depending on an allowable base claim.

Claim 50

Within the final Office action, claim 50 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen and Kompella, as applied to claim 1, and further in view of U.S. Patent No. 6,963,914 (Breitbart). The Applicants respectfully disagree with this rejection.

As explained above, claim 1 is allowable. Claim 50 depends on claim 1. Accordingly, claim 50 is allowable as depending on an allowable base claim.

Claim 50 is allowable for an additional reason. As admitted in the final Office action, “Breitbart . . . discloses combining mean latency with reliability of an estimate into a single metric (see column 7, lines 34-39).” It is then concluded that this teaching would have made it obvious to combine delay and jitter into a single value, as recited in claim 50, to simplify the monitoring of network performance. The Applicants respectfully disagree.

Combining a value and its reliability, as Breitbart teaches, is completely different from combining two separate metrics, as claim 50 recites. Using the analysis in the final Office action, any combination of related elements would make obvious any combination of different elements. The Applicants disagree with conclusion. For at least this additional reason, claim 50 is allowable.

Claim 51

Within the final Office action, claim 51 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen and Kompella, as applied to claim 1, and further in view of U.S. Patent No. 6,735,177 (Suzuki). The Applicants respectfully disagree with this rejection.

As explained above, claim 1 is allowable. Claim 51 depends on claim 1. Accordingly, claim 51 is allowable as depending on an allowable base claim.

Claim 51 is allowable for an additional reason. Suzuki discloses storing, at each node in a multicast communication network, a table containing distances between each of the multicast communication nodes. Suzuki discloses transmitting, at predetermined intervals, distance measurement request packets to all multicast communication devices.

In contrast, claim 51 recites that control data sent from the sender to the receiver is configured to instruct the receiver [a] to initiate sending one or more measurement packets, [b] to change one or more of the measurement packet sizes, inter-measurement packet transmission times and mix of packet sizes, **and** [c] to stop sending one or more of the plurality of measurement packets. Claim 51 thus recites control data instructing—and thus a receiver performing—three different functions, such as during different measurement cycles. Suzuki does not disclose this capability. For this additional reason, claim 51 is allowable.

New claims 52-54

The new claim 52 depends on claim 1. As explained above, claim 1 is allowable. Accordingly, claim 52 is allowable as depending on an allowable base claim.

Claim 52 recites that data comprises network information retrieved from network routers. The network information comprises one or more of in-bound link utilization, out-bound link utilization, in-bound link bandwidth, out-bound link bandwidth, CPU utilization. None of the cited prior art discloses this limitation. Accordingly, claim 52 is allowable for this additional reason.

The new claim 52 does not add new matter. It finds support in the original application, such as at page 9, lines 8-13.

The new claims 53 and 54 both depend on claim 9. As explained above, claim 9 is allowable. Accordingly, claims 53 and 54 are both allowable as depending on an allowable base claim.

Claim 53 recites that the sending and receiving, recited in claim 9, are performed on a single device configured to change one or more configuration parameters in response to receiving control data. None of the cited prior art discloses this limitation. Accordingly, claim 53 is allowable for this additional reason.

The new claim 53 does not add new matter. It finds support in the original application, which discloses a single device sending and receiving measurements packets (*e.g.*, Figure 1, Example 5; Figure 2; and Figure 3), as recited in claim 9.

Claim 54 recites that the measurement statistics are at least partly responsive to jitter, delay, *and* loss. None of the cited prior art discloses this limitation. Accordingly, claim 54 is allowable for this additional reason.

The new claim 54 does not add new matter. It finds support in the original application, such as in the data structure shown at page 8, lines 17-32.

Consideration of Supplemental Information Disclosure Statements

In addition to any Supplemental IDSs filed after the final Office action was mailed, the Applicants respectfully ask the Examiner to consider the following Supplemental IDSs, all filed before the final Office action was mailed:

- Supplemental IDS and Form PTO-1449 filed October 3, 2007, and received at the USPTO October 9, 2007

- Supplemental IDS and Form PTO-1449 filed November 5, 2007, and received at the USPTO November 8, 2007
- Supplemental IDS and Form PTO-1449 filed December 12, 2007, and received at the USPTO December 17, 2007

CONCLUSION

For the reasons given above, the Applicants respectfully submit that claims 1-14 and 16-54 are in condition for allowance, and allowance at an early date would be appreciated. If the Examiner has any questions or comments, the Examiner is encouraged to call the undersigned at (408) 530-9700 so that any outstanding issues can be quickly and efficiently resolved.

Respectfully submitted,
HAVERSTOCK & OWENS LLP

Dated: 12-1-08

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CERTIFICATE OF MAILING (37 CFR § 1.8(a))
I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

HAVERSTOCK & OWENS LLP.

Date: 12/01/08 